

FORM FOR COMMENTING ON A PUBLIC REVIEW DRAFT  
ASHRAE STANDARD, GUIDELINE OR ADDENDUM

**PLEASE RETURN COMPLETED FORM BY JANUARY 10, 2005**

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**Designation and Title of First Public Review Draft:** BSR/ASHRAE/IESNA Addendum b to ANSI/ASHRAE/IESNA Standard 90.1-2004, *Energy Standard for Buildings Except Low-Rise Residential Buildings*

**NOTE:** Use a separate form for each comment, completing each section (including Sections 1 and 2) to facilitate separate processing. ASHRAE encourages original commentary on its standards. All comments must be accompanied by the commenter's signed release, as provided below. However, if commenters submit comments authored by others, those comments must also be accompanied by a signed copyright release from the author of the original comment. The original comment author, representing commenters who have submitted duplicate comments may be asked to engage in dialog supporting their position. All commenters shall receive acknowledgment from ASHRAE of receipt of their comment, and may receive a response in the form of the resolution of the original comment with that comment's author.

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*Maureen M. Murphy*

Date *10 Jan. 2005*

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**3. Clause or Subclause:**

Table 6.8.1D

**4. Comment:**

(If a provision is proposed to be added, the text of the provision must be submitted in writing. If modification of a provision is proposed, the proposed text must be submitted utilizing the strikeout/underline format. (Strikeout text to be deleted and underline text to be added.) Please do not submit marked-up or highlighted copies of the standard.)

The U.S. Department of Energy wishes to thank ASHRAE and ARI in addressing specific issues that the Department pointed out with ASHRAE 90.1-2001 addendum d regarding Single Package Vertical Air Conditioners (SPVAC) and Heat Pumps (SPVHP) and wishes to support ASHRAE efforts to publish this new addendum b to 90.1-2004. However, in good faith, we must point out that there may still be an issue as to whether DOE could adopt as a manufacturing standard the proposed heating efficiency standard for SPVHPs below 65 kBtu/h. Regardless, we support ASHRAE's efforts to publish this addendum.

**5. Substantiating Statements:**

(Be brief; provide abstract of lengthy substantiation; full text should be enclosed for reference on request by project committee members.)

As you know, the Department of Energy is required under the Energy Policy and Conservation Act (EPCA) to set national energy conservation standards for certain commercial products (including most commercial Air Conditioners and Heat Pumps) and to adopt standard levels shown in the latest version of ASHRAE 90.1 unless the Department shows by clear and convincing evidence that higher standards are technologically feasible, are economically justified, and would provide significant energy savings. However, DOE is prohibited from adopting standards from 90.1 that would decrease the minimum efficiency required by existing manufacturing standards mandated by or under EPCA.

In its review of 90.1-2001 addendum d, pursuant to EPCA, the Department identified several issues with regards to the 90.1-2001 addendum d that made it impossible for DOE to adopt the standards shown in that addendum. Many of these issues concerned the need to clearly delineate SPVAC and SPVHP products according to the statutory scheme set forth in EPCA. In addition, the Department identified some cases in which the efficiency levels set forth in addendum d were lower than EPCA's current manufacturing standards, and the Department could not adopt these. It pointed out these concerns in written communications with ARI.

The proposed 90.1-2004 addendum b addresses most of the issues DOE identified in its communications to ARI. The proposed addendum, including the references to the newer ARI test procedure (ARI 390-2003), clearly delineate SPVAC and SPVHP products as a separate category of commercial air conditioners and heat pump products that can be regulated independently from other unitary air conditioners or PTAC/PTHP products. In addition, the proposed 90.1-2004 addendum b will provide EER and COP levels for SPVAC and SPVHP products in size categories of 65-135 kBtu/h and 135-240 kBtu/h, as well as an EER level for 3-phase versions of these products less than 65 kBtu/h, that are at least as efficient as the current manufacturing standards for those products.

We are still evaluating ASHRAE's proposal to use a COP rating as the heating efficiency metric for 3-phase versions of these products less than 65 kBtu/h. As with EER, COP is a single point metric of efficiency. SEER and HSPF are more comprehensive metrics designed to better reflect annual energy performance for Air Conditioning and Heat Pump products. While the proposed 90.1-2004 addendum b has increased the COP value from that shown in the earlier 90.1-2001 addendum d, the Department is still considering whether a minimum efficiency level that uses this single point rating would allow products to be less efficient than the current minimum level that uses the more comprehensive HSPF metric for these products. In particular, we are concerned about the inability of the COP metric to account for backup electric heating systems that might be used for heat pumps or the energy that might be consumed in the defrost cycle, items that the HSPF metric did account for. We recognize that in section 6.4.3.4, Heat Pump Auxiliary Heat Control, ASHRAE 90.1-2004 does provide limitations on the use of backup resistance heat in heat pumps. It is not yet clear how that limitation would be provided in the context of a manufacturing standard.

We will continue to work with ARI and ASHRAE as needed to address this ratings issue with regards to manufacturing standards for SPVHP products less than 65,000 Btu/h. We recognize that ASHRAE may want to publish addendum b to 90.1-2004 so as to provide a clear delineation in the ASHRAE 90.1 between SPVAC/SPVHP products and other Air Conditioning and Heat Pump product categories that may be subject to other efficiency standards. We support ASHRAE in that effort.

Once addendum b is published, DOE can begin to address the issue of whether efficiency levels for SPVACs and SPVHPs, more stringent than those in proposed 90.1-2004 addendum b, might be warranted under section 342(a)(6) of EPCA, 42 U.S.C. 6313(b)(6). In addition, DOE will still need to evaluate the change in test procedures in addendum b in light of sections 343(a)(2) and (4)(B)-(C) of EPCA, 42 U.S.C. 6314(a)(2) and (4)(B)-(C).

The above represents staff opinion and does not necessarily represent the views of the Secretary or official Department of Energy policy.

☐ Check if additional pages are attached. Number of additional pages:

☒ Check here if your comment is supportive in nature and does not require substantive changes in the current proposal in order to resolve your comment. If you select this option, your comment will not require a response from the project committee and will not be subject to the commenter response procedures.

**NOTE:** Use separate form for each comment. Submittals (MS Word preferred) may be attached to email, submitted on diskettes, uploaded to ASHRAE's ftp site, or submitted in paper form by mail or fax to ASHRAE, Manager of Standards, 1791 Tullie Circle, NE, Atlanta, GA 30329-2305. E-mail: [public.review.comment@ashrae.org](mailto:public.review.comment@ashrae.org).  
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